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RSNA Award Goes to VA Boston Researcher for AI in X-Ray Imaging

BOSTON – A VA Boston Healthcare System researcher and physician was named as recipient of the 2022 Radiological Society of North America Alexander R. Margulis Award for Scientific Excellence.

Named for Dr. Alexander R. Margulis, a distinguished investigator and visionary in the science of radiology, the annual award recognizes the best original scientific article published in RSNA's flagship journal, *Radiology*.

The award will be presented to Dr. Ali Guermazi, chief of radiology at VA Boston HCS, and director of the Quantitative Imaging Center, professor of radiology and medicine, section chief of musculoskeletal imaging, and assistant dean in the office of diversity at the Boston University Chobanian & Avedisian School of Medicine, for the article "Improving Radiographic Fracture Recognition Performance and Efficiency Using Artificial Intelligence."

In the Food and Drug Administration registration study, the researchers retrospectively analyzed 480 X-ray examinations from various U.S. hospitals, including 240 patients with a total of 350 fractures, and 240 patients with no fractures. The research found that sensitivity per patient was 10.4 percent higher with AI aid, versus without AI; that AI shortened the average reading time by roughly six seconds per examination; and that AI may even improve the specificity of fracture detection.

"AI can be a powerful tool to help radiologists and other physicians improve diagnostic performance and increase efficiency, while potentially improving patient experience at the time of hospital or clinic visit," said Guermazi. "As it becomes clearer that it can beat the human eye at certain specific and repetitive or tedious tasks, AI will be viewed as a great add-on to heavy clinical workflow."

The Margulis Award will be presented at the RSNA Scientific Assembly and Annual Meeting in Chicago, Nov. 27 – Dec. 1. More information is available at: https://www.rsna.org/news/2022/november/2022-Margulis

The study is available at: https://pubs.rsna.org/doi/10.1148/radiol.210937

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Dr. Ali Guermazi, chief of radiology at the VA Boston Healthcare System, and director of the Quantitative Imaging Center, professor of radiology and medicine, section chief of musculoskeletal imaging, and assistant dean in the office of diversity at the Boston University Chobanian & Avedisian School of Medicine. (Photo courtesy of Dr. Ali Guermazi)

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